

What Is Claimed Is:

1. A method of prioritizing a plurality of cells in a neighbor list of a cell in an active set comprising the steps of:

5 for each cell of the plurality of cells, tracking an amount of times the cell of the plurality of cells is added to the active set;

tracking an amount of times any cell of the plurality of cells is added to the active set; and

10 when the plurality of cells have been added to the active set a predetermined amount of times, prioritizing the plurality of cells in the neighbor list.

2. The method of claim 1 wherein the step of tracking when a cell of the plurality of cells is added to the active set comprises:

15 maintaining a first counter set for the plurality of cells, wherein the first counter set comprises a counter for each of the plurality of cells; and

incrementing the counter in the first counter set corresponding to the cell that is added to the active set.

20 3. The method of claim 2 wherein the step of tracking when any cell of the plurality of cells is added to the active set comprises:

maintaining a second counter for the neighbor list; and

incrementing the second counter when any cell of the plurality of cells in the neighbor list is added to the active set.

25 4. The method of claim 3 wherein the step of prioritizing comprises:  
when the second counter reaches a predetermined value, ordering the plurality of cells in the neighbor list from a highest priority to a lowest priority, wherein the cell associated with the counter in the first counter set having a highest value is given the highest priority and the cell associated with the counter in the first counter set having a lowest value is given the lowest priority.

5. The method of claim 1 wherein the step of tracking the amount of times the cell of the plurality of cells is added to the active set comprises:

5 maintaining a plurality of counter sets for each cell of the plurality of cells, wherein each of the plurality of counter sets comprises a plurality of counters corresponding to the plurality of cells and wherein a first counter set of the plurality of counter sets is active and a second counter set of the plurality of counter sets is standby; and

10 incrementing the counter in the active counter set corresponding to the cell that is added to the active set.

6. The method of claim 5 wherein the step of tracking when any cell of the plurality of cells is added to the active set comprises:

15 maintaining a plurality of neighbor list counters, wherein a first neighbor list counter is active and a second neighbor list counter is standby; and

incrementing the active neighbor list counter when any cell of the plurality of cells in the neighbor list is added to the active set.

20 7. The method of claim 5 further comprising the steps of:

determining whether the counter in the active counter set corresponding to the cell that is added to the active set has reached a maximum value; and

25 if the counter has reached the maximum value,

incrementing the active neighbor list counter;

clearing the standby counter set;

clearing the standby neighbor list counter;

swapping the active and standby counter sets

swapping the active and standby neighbor list counters.

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8. In a communications system wherein user equipment monitors a plurality of cells in a plurality of neighbor lists for inclusion in a monitored set and subsequent promotion to an active set, a method of prioritizing the plurality of cells in the plurality of neighbor lists comprising the steps of:

- 5        detecting when a new cell has been added to the active set;
- for each cell, already in the active set,
  - determining whether the new cell is included in the neighbor list of cell;
  - if the new cell is included in the neighbor list of cell,
    - 10        incrementing a counter in a first counter set associated with the new cell in the neighbor list of cell;
    - determining whether the counter in the first counter set has reached a maximum value;
    - if the counter in the first counter set has not reached the maximum value,
      - 15        incrementing a first neighbor list counter associated with the neighbor list of cell;
      - determining whether the first neighbor list counter has reached a predetermined value;
      - if the first neighbor list counter has reached the predetermined value, prioritizing the plurality of cells in the neighbor list of cell; and
  - 20        constructing the monitored set from the plurality of cells in the plurality of neighbor lists.

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9. The method of claim 8 wherein the first counter set is active and the plurality of cells in the neighbor list of cell<sub>i</sub> has a second counter set that is standby, wherein the first neighbor list counter is active and each neighbor list of cell<sub>i</sub> has a second neighbor list counter that is standby, and wherein if a counter in the active counter set has reached the maximum value, the method further comprises the steps of:

incrementing the active neighbor list counter associated with the neighbor list of  $cell_i$ ;

clearing the standby counter set of the plurality of cells in the neighbor list of cell<sub>i</sub>;

clearing the standby neighbor list counter of the neighbor list of cell;

swapping the active and standby counter sets;

swapping the active and standby neighbor list counters;

determining whether the standby neighbor list counter for the neighbor list of cell<sub>i</sub> has reached a predetermined value; and

if the standby neighbor list counter has reached the predetermined

value, prioritizing the plurality of cells in the neighbor list of cell<sub>i</sub>.

10. An apparatus for prioritizing a plurality of cells in a neighbor list of a cell in an active set comprising:

a radio network controller; and

a processor running in the radio network controller wherein the processor when operative is configured to

5 processor when operative is configured to

for each cell of the plurality of cells, track an amount of times the cell of the plurality of cells is added to the active set;

track an amount of times any cell of the plurality of cells is added to the active set; and

10 when the plurality of cells have been added to the active set a predetermined amount of times, prioritize the plurality of cells in the neighbor list.